

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P333433-935

Luminaire Tested: **S125DIW-S1090D470U935-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333433-935
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIW-S1090D470U935-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5072.4 lumens
Efficiency: N/A
Efficacy: 109.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')
CIE Type: Semi-Direct

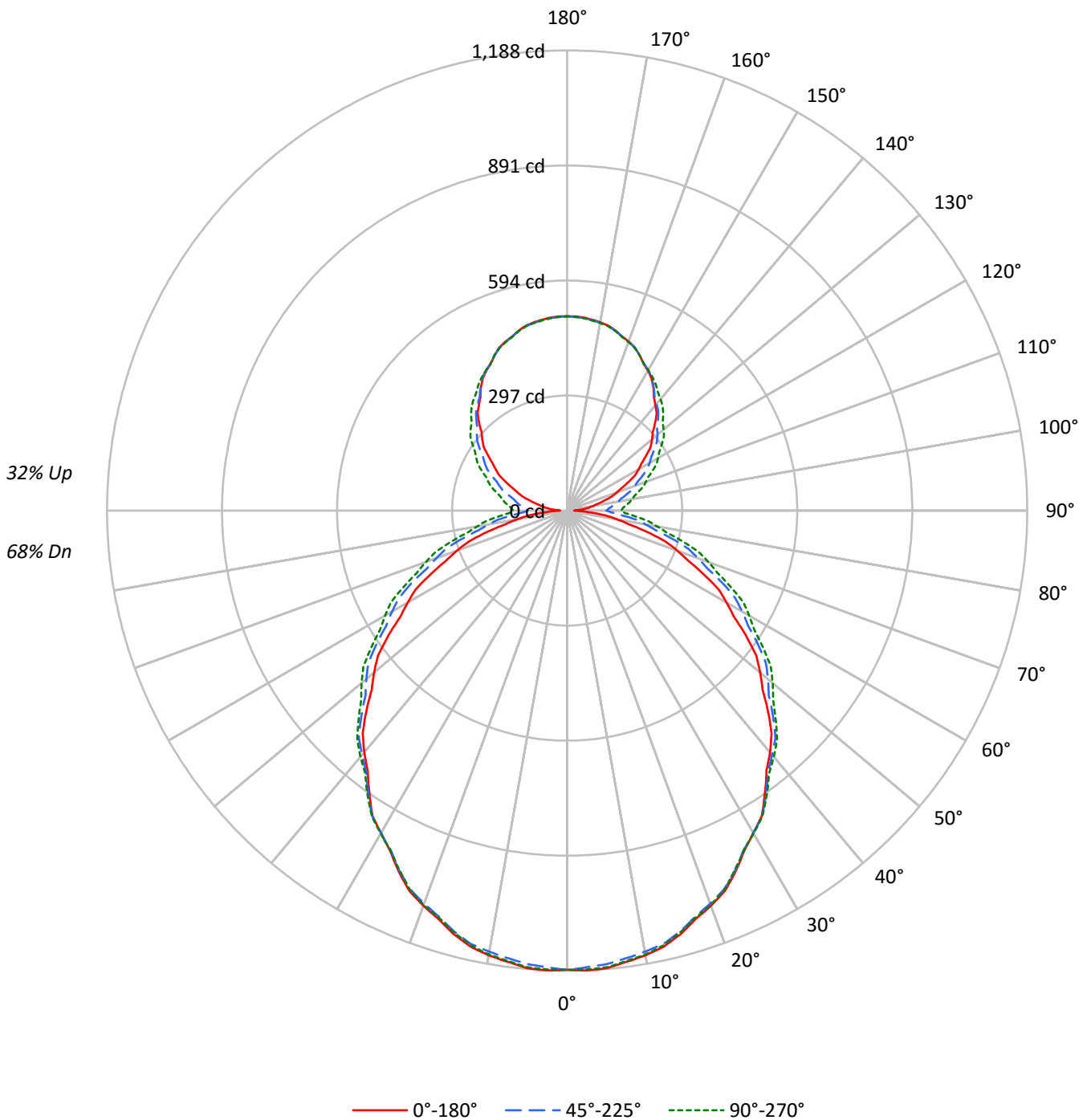
Input Watts (W): 46.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333433-935

CATALOG NUMBER: S125DIW-S1090D470U935-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	111	111	111	111	105	105	105	105	93	93	93	83	83	83	73	73	73	68
1	101	96	92	88	95	91	87	83	80	77	75	71	69	67	63	61	59	55
2	91	83	76	71	86	79	73	67	70	65	61	62	58	55	55	52	49	45
3	83	73	65	59	78	69	62	56	61	56	51	54	50	46	48	45	41	38
4	76	64	56	49	71	61	53	47	54	48	43	48	43	39	43	39	36	32
5	70	57	49	42	65	54	46	41	49	42	37	43	38	34	38	34	31	28
6	64	51	43	37	60	49	41	35	44	37	32	39	34	30	35	30	27	24
7	59	46	38	32	56	44	36	31	40	33	29	36	30	26	32	27	24	22
8	55	42	34	28	52	40	33	27	36	30	25	33	27	23	29	25	21	19
9	52	39	31	25	48	37	30	25	33	27	23	30	25	21	27	23	19	17
10	48	36	28	23	45	34	27	22	31	25	21	28	23	19	25	21	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7657	7657	7657
5°	7672	7516	7539
10°	7617	7381	7370
15°	7527	7221	7155
20°	7405	7022	6940
25°	7259	6810	6675
30°	7083	6575	6434
35°	6919	6361	6214
40°	6751	6134	5991
45°	6562	5941	5794
50°	6381	5731	5621
55°	6164	5532	5416
60°	5927	5306	5207
65°	5679	5069	4972
70°	5397	4745	4731
75°	4952	4435	4434
80°	4367	4057	4111
85°	3824	3802	4009



TEST NUMBER: P333433-935

CATALOG NUMBER: S125DIW-S1090D470U935-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.1	2.2
10°-20°	318.2	6.3
20°-30°	473.3	9.3
30°-40°	560.6	11.1
40°-50°	579.6	11.4
50°-60°	533.9	10.5
60°-70°	431.6	8.5
70°-80°	289.0	5.7
80°-90°	151.0	3.0
90°-100°	117.7	2.3
100°-110°	161.2	3.2
110°-120°	209.5	4.1
120°-130°	244.7	4.8
130°-140°	258.0	5.1
140°-150°	244.9	4.8
150°-160°	203.9	4.0
160°-170°	135.6	2.7
170°-180°	47.4	0.9
0°-30°	903.6	17.8
0°-40°	1464.2	28.9
0°-60°	2577.8	50.8
0°-90°	3449.4	68.0
90°-120°	488.4	9.6
90°-150°	1236.0	24.4
90°-180°	1623.0	32.0
0°-180°	5072.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1186	1186	1186	1186	1186	
5°	1186	1183	1175	1184	1183	112
15°	1132	1133	1125	1132	1128	319
25°	1029	1032	1025	1029	1024	473
35°	890	898	895	898	898	557
45°	733	746	752	760	761	566
55°	564	582	601	613	618	504
65°	388	415	443	460	465	385
75°	214	244	281	304	310	227
85°	64	102	143	168	178	68
90°	19	59	102	129	140	14
95°	40	72	115	142	152	39
105°	99	121	157	182	192	106
115°	175	186	216	236	243	173
125°	250	253	275	292	298	224
135°	322	323	331	346	351	248
145°	388	388	389	395	399	242
155°	443	443	443	444	443	204
165°	481	480	481	482	480	136
175°	500	499	499	501	498	48
180°	501	501	501	501	501	



TEST NUMBER: P333433-935

CATALOG NUMBER: S125DIW-S1090D470U935-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6
2.5°	1188.4	1187.9	1187.5	1187.1	1186.7	1185.8	1184.3	1182.8	1181.5	1180.0	1181.5
5°	1185.6	1185.1	1184.6	1184.0	1183.5	1182.3	1180.5	1178.7	1176.9	1175.1	1177.2
7.5°	1175.1	1174.9	1174.7	1174.5	1174.3	1173.3	1171.4	1169.5	1167.7	1165.8	1167.6
10°	1165.8	1165.8	1165.8	1165.8	1165.8	1164.8	1162.7	1160.6	1158.6	1156.5	1158.3
12.5°	1152.8	1153.0	1153.2	1153.4	1153.7	1152.9	1151.2	1149.6	1148.0	1146.2	1147.7
15°	1132.1	1132.4	1132.6	1132.9	1133.2	1132.4	1130.6	1128.8	1127.0	1125.2	1126.7
17.5°	1105.1	1105.6	1106.1	1106.6	1107.2	1106.6	1104.7	1102.9	1101.1	1099.3	1100.5
20°	1085.6	1086.2	1086.7	1087.2	1087.7	1087.0	1085.2	1083.4	1081.6	1079.8	1080.6
22.5°	1063.2	1064.2	1065.1	1066.1	1067.0	1066.4	1064.5	1062.5	1060.4	1058.4	1059.4
25°	1028.6	1029.4	1030.2	1031.0	1031.7	1031.4	1029.8	1028.3	1026.7	1025.2	1026.2
27.5°	990.1	991.2	992.3	993.5	994.6	994.3	992.6	990.8	989.0	987.3	988.0
30°	961.2	962.8	964.3	965.9	967.4	967.4	965.9	964.3	962.8	961.2	961.7
32.5°	935.2	936.5	937.9	939.3	940.6	940.6	939.5	938.4	937.3	936.2	936.7
35°	890.4	892.2	894.0	895.8	897.6	898.1	897.3	896.6	895.8	895.0	895.8
37.5°	845.5	847.1	848.8	850.4	852.0	852.8	852.6	852.3	852.0	851.8	852.8
40°	814.8	816.8	818.9	821.0	823.0	824.0	823.7	823.5	823.2	822.9	824.0
42.5°	781.3	784.0	786.7	789.4	792.0	793.7	794.3	794.8	795.4	796.0	797.2
45°	733.4	736.2	739.1	741.9	744.8	746.8	748.1	749.4	750.7	752.0	753.8
47.5°	684.4	687.0	689.7	692.2	694.9	697.3	699.6	701.8	704.0	706.2	708.9
50°	650.9	653.8	656.6	659.4	662.3	665.1	668.0	670.8	673.6	676.5	679.3
52.5°	615.5	619.1	622.5	625.9	629.4	632.8	636.4	639.8	643.3	646.7	649.8
55°	563.7	567.8	572.0	576.1	580.2	584.4	588.5	592.6	596.8	600.9	603.7
57.5°	510.7	515.7	520.6	525.6	530.5	535.5	540.2	544.9	549.7	554.4	557.7
60°	475.4	480.5	485.7	490.9	496.0	501.2	506.4	511.5	516.7	521.9	525.7
62.5°	441.0	446.2	451.3	456.5	461.7	467.0	472.6	478.2	483.8	489.3	493.6
65°	388.2	394.2	400.1	406.0	412.0	418.0	424.2	430.4	436.6	442.8	446.7
67.5°	338.5	344.2	349.9	355.7	361.4	367.4	373.8	380.0	386.3	392.6	397.4
70°	302.2	308.2	314.1	320.0	326.0	332.3	339.0	345.7	352.4	359.1	364.0
72.5°	266.9	273.0	279.1	285.3	291.4	298.2	305.6	312.9	320.2	327.5	332.9
75°	213.9	220.6	227.3	234.0	240.7	248.2	256.5	264.8	273.0	281.3	286.5
77.5°	163.0	170.7	178.5	186.2	194.0	201.8	209.7	217.7	225.7	233.6	239.3
80°	131.3	139.1	146.8	154.5	162.3	170.6	179.3	188.1	196.9	205.7	211.4
82.5°	102.5	110.6	118.8	127.0	135.2	143.7	152.7	161.7	170.7	179.7	185.2
85°	63.9	72.4	80.9	89.5	98.0	106.8	115.8	124.8	133.9	142.9	148.6
87.5°	36.3	44.8	53.1	61.6	70.0	78.6	87.5	96.4	105.3	114.3	120.3
90°	19.0	28.0	36.9	45.9	54.8	64.0	73.4	82.7	92.1	101.5	108.0
92.5°	26.2	34.4	42.4	50.5	58.7	67.7	77.4	87.1	96.9	106.6	112.9
95°	40.5	47.4	54.2	61.1	68.0	76.3	85.9	95.6	105.2	114.9	121.2
97.5°	55.9	62.0	68.1	74.2	80.3	88.2	97.9	107.5	117.2	126.9	132.9
100°	67.4	72.8	78.3	83.7	89.1	96.5	105.9	115.3	124.7	134.1	140.3
102.5°	79.9	85.2	90.7	96.0	101.3	108.3	117.0	125.6	134.2	142.8	149.0
105°	99.4	104.0	108.6	113.1	117.7	124.2	132.4	140.7	149.0	157.2	162.9
107.5°	121.1	125.1	129.1	133.0	136.9	142.8	150.7	158.5	166.3	174.2	179.5
110°	136.1	139.7	143.2	146.7	150.2	155.8	163.2	170.7	178.2	185.7	190.9



TEST NUMBER: P333433-935

CATALOG NUMBER: S125DIW-S1090D470U935-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	152.4	155.1	157.8	160.5	163.2	168.2	175.6	183.0	190.3	197.6	202.4
115°	175.1	177.3	179.5	181.7	183.8	188.3	195.2	202.1	209.0	215.9	220.4
117.5°	198.0	199.4	200.7	202.1	203.5	207.3	213.9	220.3	226.9	233.4	237.8
120°	213.0	214.2	215.4	216.6	217.8	221.4	227.5	233.5	239.5	245.6	249.9
122.5°	228.3	228.9	229.4	229.9	230.4	233.7	239.6	245.6	251.5	257.4	261.6
125°	250.1	250.4	250.6	250.9	251.2	253.9	259.2	264.4	269.7	274.9	278.9
127.5°	272.3	272.4	272.4	272.5	272.5	274.7	279.1	283.4	287.7	292.1	295.8
130°	286.4	286.6	286.8	287.0	287.1	289.1	292.9	296.7	300.5	304.3	307.8
132.5°	299.5	300.2	300.8	301.5	302.1	303.8	306.6	309.4	312.1	314.9	318.4
135°	321.5	321.8	322.1	322.4	322.6	323.6	325.5	327.4	329.3	331.2	334.6
137.5°	342.2	342.5	342.9	343.1	343.4	344.1	345.2	346.2	347.3	348.4	351.5
140°	354.7	355.2	355.6	356.0	356.5	357.0	357.5	358.0	358.5	359.0	362.1
142.5°	368.2	368.3	368.4	368.6	368.8	369.0	369.5	369.8	370.1	370.6	373.1
145°	387.9	388.0	388.1	388.1	388.2	388.4	388.7	388.9	389.2	389.4	390.7
147.5°	405.0	405.2	405.4	405.5	405.8	406.0	406.1	406.4	406.6	406.8	407.4
150°	417.2	417.1	417.0	416.9	416.8	417.0	417.3	417.7	418.0	418.4	418.4
152.5°	427.1	427.3	427.4	427.5	427.7	427.7	427.9	428.1	428.2	428.3	428.5
155°	442.6	442.6	442.6	442.6	442.6	442.6	442.6	442.7	442.8	442.9	443.2
157.5°	456.2	456.1	455.9	455.7	455.5	455.5	455.6	455.6	455.7	455.8	456.2
160°	464.4	464.2	463.8	463.6	463.3	463.2	463.3	463.4	463.5	463.6	464.0
162.5°	471.6	471.4	471.2	471.0	470.8	470.7	470.7	470.7	470.8	470.8	471.2
165°	481.1	481.0	480.8	480.6	480.4	480.4	480.5	480.6	480.7	480.8	481.1
167.5°	489.3	489.0	488.6	488.3	487.9	487.8	487.8	487.8	487.8	487.8	488.3
170°	493.6	493.3	492.9	492.6	492.2	492.1	492.1	492.1	492.1	492.1	492.6
172.5°	496.8	496.5	496.1	495.8	495.4	495.2	495.2	495.2	495.2	495.2	495.8
175°	500.3	499.9	499.6	499.2	498.9	498.7	498.7	498.7	498.7	498.7	499.2
177.5°	502.0	501.8	501.5	501.3	500.9	500.8	500.8	500.7	500.6	500.5	500.9
180°	501.4	501.4	501.4	501.4	501.4	501.4	501.4	501.4	501.4	501.4	501.4



TEST NUMBER: P333433-935

CATALOG NUMBER: S125DIW-S1090D470U935-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6	1185.6
2.5°	1182.8	1184.3	1185.8	1186.4	1186.2	1185.9	1185.8	1185.6
5°	1179.2	1181.3	1183.4	1184.3	1184.0	1183.8	1183.5	1183.3
7.5°	1169.4	1171.2	1173.0	1173.8	1173.5	1173.3	1173.0	1172.8
10°	1160.1	1161.9	1163.7	1164.5	1164.2	1164.0	1163.7	1163.5
12.5°	1149.1	1150.5	1151.8	1152.2	1151.6	1150.9	1150.2	1149.5
15°	1128.3	1129.8	1131.4	1131.6	1130.6	1129.5	1128.5	1127.5
17.5°	1101.7	1102.9	1104.1	1104.3	1103.7	1103.1	1102.5	1101.9
20°	1081.3	1082.1	1082.9	1083.3	1083.3	1083.3	1083.3	1083.3
22.5°	1060.4	1061.4	1062.3	1062.5	1061.9	1061.3	1060.7	1060.1
25°	1027.3	1028.3	1029.3	1029.2	1027.9	1026.6	1025.3	1024.0
27.5°	988.7	989.5	990.2	990.3	989.8	989.4	988.9	988.4
30°	962.3	962.8	963.3	963.5	963.2	962.9	962.7	962.4
32.5°	937.2	937.7	938.2	938.3	938.1	937.8	937.5	937.3
35°	896.6	897.3	898.1	898.5	898.5	898.5	898.5	898.5
37.5°	853.9	854.9	855.9	856.4	856.3	856.2	856.0	855.9
40°	825.0	826.0	827.1	827.9	828.4	828.9	829.4	829.9
42.5°	798.4	799.7	800.9	801.6	801.7	801.8	801.9	802.0
45°	755.6	757.4	759.2	760.3	760.5	760.8	761.0	761.3
47.5°	711.5	714.1	716.8	718.3	718.9	719.5	720.1	720.7
50°	682.2	685.0	687.9	689.7	690.4	691.2	692.0	692.8
52.5°	652.8	655.8	658.9	660.7	661.2	661.9	662.5	663.0
55°	606.6	609.4	612.3	614.2	615.3	616.3	617.3	618.4
57.5°	560.9	564.2	567.5	569.5	570.2	571.0	571.8	572.6
60°	529.6	533.5	537.4	539.7	540.4	541.2	542.0	542.8
62.5°	497.9	502.2	506.5	509.1	510.1	511.1	512.0	513.1
65°	450.6	454.4	458.3	460.8	461.8	462.9	463.9	464.9
67.5°	402.0	406.7	411.5	414.5	415.8	417.2	418.4	419.8
70°	368.9	373.8	378.8	382.0	383.6	385.1	386.7	388.2
72.5°	338.2	343.5	348.8	352.1	353.2	354.3	355.4	356.6
75°	291.6	296.8	302.0	305.1	306.4	307.7	309.0	310.3
77.5°	245.0	250.6	256.3	259.7	260.7	261.7	262.8	263.8
80°	217.1	222.7	228.4	231.8	232.8	233.8	234.9	235.9
82.5°	190.6	196.1	201.6	205.3	207.2	209.0	210.9	212.7
85°	154.3	160.0	165.7	169.5	171.6	173.7	175.7	177.8
87.5°	126.3	132.3	138.4	142.2	144.1	146.0	147.8	149.7
90°	114.3	120.7	127.1	131.3	133.4	135.4	137.5	139.6
92.5°	119.2	125.5	131.8	136.0	137.9	139.9	142.0	144.0
95°	127.5	133.8	140.1	144.2	146.2	148.2	150.2	152.1
97.5°	138.9	144.9	150.8	154.8	156.6	158.5	160.4	162.2
100°	146.5	152.7	158.9	162.9	164.6	166.3	168.1	169.8
102.5°	155.0	161.1	167.1	171.1	172.9	174.6	176.4	178.2
105°	168.6	174.3	179.9	183.8	185.9	188.0	190.0	192.1
107.5°	184.9	190.3	195.7	199.1	200.7	202.3	203.9	205.5
110°	196.0	201.2	206.4	209.8	211.5	213.3	215.0	216.7



TEST NUMBER: P333433-935

CATALOG NUMBER: S125DIW-S1090D470U935-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	207.2	212.1	216.9	220.2	221.8	223.4	225.2	226.8
115°	225.0	229.5	234.1	237.1	238.6	240.0	241.5	243.0
117.5°	242.3	246.8	251.2	254.2	255.5	257.0	258.4	259.8
120°	254.3	258.7	263.1	266.0	267.2	268.4	269.6	270.8
122.5°	265.7	269.8	274.0	276.6	277.9	279.1	280.4	281.7
125°	282.8	286.8	290.8	293.3	294.5	295.8	297.0	298.2
127.5°	299.5	303.2	307.0	309.5	310.8	312.2	313.5	314.9
130°	311.3	314.9	318.4	320.7	321.8	323.0	324.1	325.2
132.5°	321.9	325.5	329.0	331.2	332.0	332.9	333.7	334.6
135°	337.9	341.3	344.7	346.8	347.8	348.7	349.7	350.6
137.5°	354.6	357.8	361.0	362.8	363.4	364.0	364.6	365.2
140°	365.1	368.1	371.1	372.9	373.5	374.1	374.7	375.2
142.5°	375.7	378.2	380.7	382.3	382.9	383.5	384.1	384.7
145°	392.0	393.3	394.6	395.6	396.4	397.2	398.0	398.7
147.5°	408.0	408.6	409.2	409.5	409.4	409.2	409.1	409.1
150°	418.4	418.4	418.4	418.4	418.4	418.5	418.6	418.7
152.5°	428.8	429.0	429.1	429.1	428.9	428.6	428.3	428.1
155°	443.6	443.9	444.3	444.3	443.8	443.4	443.0	442.6
157.5°	456.5	456.8	457.2	457.1	456.5	455.9	455.4	454.8
160°	464.3	464.7	465.0	464.9	464.5	464.1	463.6	463.2
162.5°	471.7	472.0	472.4	472.4	471.9	471.4	470.9	470.4
165°	481.5	481.8	482.2	482.1	481.6	481.0	480.5	480.0
167.5°	488.8	489.3	489.8	489.8	489.2	488.7	488.2	487.7
170°	493.1	493.6	494.2	494.1	493.5	492.9	492.3	491.7
172.5°	496.3	496.8	497.3	497.3	496.7	496.2	495.7	495.2
175°	499.7	500.3	500.8	500.8	500.2	499.6	498.9	498.3
177.5°	501.4	501.8	502.2	502.1	501.7	501.2	500.7	500.2
180°	501.4	501.4	501.4	501.4	501.4	501.4	501.4	501.4

(END OF REPORT)